

ABSTRACT

Bi-modular adaptive CDMA receiver

The invention concerns a method of receiving a signal transmitted by a transmitter (k) and arriving at an array of antennae (300) after having propagated along a plurality of paths (i), comprising a filtering stage (310_k) decomposing each antenna signal into separate signals ($x_{i,k}$) issuing from the different paths, a channel formation step (320_k) forming path signals ($y_{i,k}$) from the said separate signals by means of a first set of complex coefficients ($b_{i,k}$), a combination step (340_k) linearly combining the said path signals by means of a second set of complex coefficients ($c_{i,k}$) in order to supply a combined signal (z_k), the method being characterised in that a plurality of first error signals ($\varepsilon'_{i,k}$) are formed (331_k) between a reference value (q_k) of the signal transmitted and the said path signals ($y_{i,k}$) and in that a second error signal (ε''_k) is formed (351_k) between the said reference value and the said combined signal (z_k), the first and second sets of complex coefficients being adapted (330_k, 350_k) so as to respectively minimise the root mean square values of the first signals and of the second error signal.

Fig. 3